



Maricopa County

Environmental Services Department

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Guidelines for the Safe Handling of Drinking Water, Ice, and Dispensers at Athletic Facilities

With the Arizona heat comes a major challenge for anyone spending time outdoors. One of the greatest areas of concern is the dispensing of water at school athletic events and practices. There have been several incidents where pathogenic bacteria and viruses were spread through improperly sanitized water dispensing units. One of the most noteworthy incidents occurred on July 19, 2002 when a 15 year old boy tragically passed away from complications associated with a Norovirus infection associated with an improperly handled water container at a golf course in Phoenix, Arizona. In all, there were 83 cases of the Norovirus linked to that one golf course during their two day junior tournament in July 2002. As a result of this case, our Division conducted a survey of over 150 golf courses in Maricopa County and found that over 63% of them were dispensing water in an unapproved manner.

The purpose of this memo is to provide some information as to how to properly dispense drinking water to athletes and other individuals. With the exception of bottled water from an approved processing plant, all portable water dispensing devices must be approved by the Maricopa County Environmental Services Department.

The Arizona Revised Statute Title 9 Chapter 8 Article 7 Section R-8-706 addresses the proper dispensing of drinking water at public schools. It states that all drinking water must come from either a clean drinking fountain that provides water in such a manner that no portion of a user's mouth can touch where the water streams out of. Other approved means are a cleaned and sanitized water cooler, bottled water cooler, lavatory faucet, or a portable water container. If a portable water container is used, the responsible party must assure that it is washed, rinsed, sanitized, and stored properly after each use. Additionally a common drinking cup shall not be used unless it is properly washed, rinsed, and sanitized after each use.

Figure 1 depicts examples of unapproved water dispensing devices. These devices are not easily cleanable and present a significant hazard to cross contamination through the use of a common spigot for dispensing water. Another concern is that these units have the ability to be connected to a non-potable water supply. Figures 2 thru 3 depict examples of approved water dispensing devices.

Figure 1: Unapproved Water Dispensing Units: The below five pictures represent unapproved units for dispensing water at athletic fields. Please note that some of these are easily hooked up to a non-potable water supply. Others work with an electronic water dispensing system. All of the units provide a common drinking spigot and they are not easily cleaned and sanitized between uses providing an easy means to transmit disease between users.



Figures 2 thru 3: Approved Water Dispensing Units: Figures 2 thru 3 represent approved units for dispensing water at athletic fields.



Fig. 2. This is an approved container where single use cups are dispensed in an approved manner and the top is locked shut to prevent tampering. These units must be washed, rinsed, and sanitized at least once daily in an approved permitted kitchen.



Fig. 3. This is an example of a common drinking fountain. The angled dispensing of water prevents individuals from touching the spigot with their mouths. This unit must be attached to an approved water

Below are some additional guidelines to consider when dispensing water at athletic facilities:

Water and Ice

- Water and ice must be from a public water distribution system or an approved water supply that is tested to ensure conformity with applicable regulations
- Ice that is used for athletic injuries shall **not** be for human consumption and the Division recommends installing a sign stating this.
- All ice machines for drinking ice shall be located in a controlled area that is not subject to contamination away from areas such as restrooms, showers, and locker rooms.

Water Dispensers

- The water dispenser should be constructed of food grade materials and be easily cleaned.
- The spigot should be of a gravity flow design to prevent contamination during use.
- The dispensers should be cleaned and sanitized at least once every 24 hours. This includes washing with a detergent in the first compartment of a three-compartment sink, rinsing clean with water in the second compartment, and sanitizing with an approved chemical in the third compartment by immersing for one minute. The compartments of the sink should be of sufficient size to allow immersion of the container. For containers too large to be immersed in the three-compartment sink, a clean and sanitize in-place procedure can be used. This includes use of a clean bucket and wash cloth for the detergent cleaning step, followed by rinsing the container at least three times with water, and finally, spraying the inside of the container and spigot with a sanitizer solution.
- Provide an area to allow proper air drying of dispensers. Containers shall not be stored on the floor at any time.
- Pay special attention to cleaning and sanitizing the dispenser nozzle.

Dispenser Filling

- The dispenser should be filled in an area free of environmental contaminants such as dust and insects.
- The dispenser should not be placed on the floor while filling.
- The dispenser should be filled in a room with smooth, dry, easily cleanable floors, walls, and ceilings. The dispenser should be kept away from chemical storage or other contaminants.
- The water hose used to fill the dispenser must be food grade (garden hoses are not approved) and not stored on the ground or capable of being submerged into a drain.
- Hoses should be used exclusively for drinking water dispenser filling and not to fill other equipment or tanks (such as pesticide, herbicide, battery containers or used to clean other things).
- Plumbing code must be met to protect the water supply. (Cross connections must not be present and backflow devices are required.)
- Ice must be dispensed with an ice scoop (without coming in direct human contact).
- To prevent direct hand contact with the ice, it is recommend that employees wear disposal gloves

Dispenser Location

- The dispenser should be located so that it is free from possible contamination. This includes placing it a minimum of three feet off the ground, locating it so that it will not be subject to other sources of contamination (i.e., hit by sprinkler water or misting systems).
- Water dispensers must be placed in a tamper-proof setting to eliminate access to the ice or contents of the dispenser by removing the top cover.
- Single service cups must be provided and protected at the dispenser.

Personal Hygiene

- Employees must properly wash their hands prior to filling containers.
- A separate hand sink stocked with soap and paper towels should be provided for employees to wash their hands. This sink should be in the same area where containers are filled and the ice is added to the containers.
- Do not allow any sick person to fill or handle water containers.

If you are not capable of following these guidelines, it is recommended that bottled water be provided.

For more information, call the Maricopa County Environmental Services Department at (602) 506-6970.